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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/814,585	03/22/2001	John E. Dolan	KLR 7146.099	3733

7590 01/13/2005  
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EXAMINER

ALAVI, AMIR

ART UNIT PAPER NUMBER

2621

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/814,585

**Applicant(s)**

DOLAN ET AL.

**Examiner**

Amir Alavi

**Art Unit**

2621

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28,30-32 and 34-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-27,34,36,37,39,40,42,44 and 46 is/are allowed.
- 6) ☒ Claim(s) 28 and 30-32 is/are rejected.
- 7) ☒ Claim(s) 35,38,41,43,45 and 47 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **Response to Arguments**

- Applicant's arguments filed 03, September 2004 have been fully considered but they are not persuasive.
- Applicant argues in essence that the cited prior art applied in the rejections are not in the same field of endeavor.
- Examiner disagrees and indicates that the cited prior art reasonably address limitations of the claimed invention. Applicant is reminded that Examiner will interpret each claim in the broadest reasonable sense, as such, the claims and only the claims form the metes and bounds of the invention. In this regard , wherein the claimed invention is an imaging system comprising an imaging device sensing an object, while the two prior art applied, Dobbs et al. (USPN 5,130,789), disclose a digital camera such as the one shown in figure 1, this digital camera is clearly an imaging system comprising an imaging device sensing an object; while Wiggins (USPN 4,538,185), discloses boundary detection in raster scanners, in this regard, Wiggins has been applied as the primary

reference, while Dobbs et al., being in the same field of the invention of an imaging system comprising an imaging device sensing an object, to conclude it would not have been out of ordinary for one of ordinary skill in the art at the time of the invention to utilize this color conversion of Dobbs et al. in Wiggins, because as Dobbs et al., on column 8, lines 47-48 disclose, as a result of such color space conversion, the luminance contour detail of the object is preserved.

### **Claim Rejections - 35 USC § 103**

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- Claims 28 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiggins (US 4,538,185) in view of Dobbs et al. (US 5,130,789).

Regarding claim 28, Wiggins discloses: An imaging device sensing an object (Please note, figure 1, in correlation to column 2, line 30. As indicated document 26 to be scanned by scanner 10, in this regard, document 26 corresponds to Applicant's object, while the scanner corresponds to Applicant's imaging device); a backing in opposing relationship with said object (Please note, figures 1 and 4, in correlation to column 4, lines 51-54. As indicated an area between the opposite or left side of the document and the adjoining left side edge of platen 26 is covered directly by the corrugated surface 63 of cover 12, in this regard, cover 12 and it's corrugated surface 63 correspond to Applicant's backing); and wherein said imaging system determines at least one general bounding region of said object (Please note, figure 4, in correlation to column 4, lines 60-62. As indicated position and size of the document 26 on platen 24 is readily identified).

However, Wiggins does not specifically disclose, wherein converting a first color space of an image to a second color space where the luminance of said image is enhanced over the first color space for determining said at least one boundary of said object.

On the other hand Dobbs et al., in the same field of endeavor disclose, wherein converting a first color space of an image to a second color space where the luminance of said image is enhanced over the first color space for determining said at least one boundary of said object (Please note, figure 5 in correlation to column 8, lines 29-55. As indicated the luminance axis of the Y,I,Q

coordinate system into which the original RGB values of the pixel of interest have been converted, in the form of an elliptical cylinder 40 which has an upper boundary plane 40U and a lower boundary plane 40L).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize this color space conversion of Dobbs et al., in Wiggins's invention, because as Dobbs et al., on column 8, lines 47-48 disclose, as a result of such color space conversion, the luminance contour detail of the object is preserved).

Regarding claim 30, Dobbs et al., disclose wherein said first color space includes a plurality of dimensions and said second color space includes fewer dimensions than said first color space (Please note, column 8, line 36-37, wherein the first color space RGB has three dimensions and the second color space is one dimensional luminance).

Regarding claim 31, Dobbs et al., disclose wherein said first color space is red, green, and blue, and said second color space is luminance (Please note, column 8, line 36-37, wherein the first color space RGB has three dimensions and the second color space is one dimensional luminance).

Regarding claim 32, Dobbs et al., disclose wherein said imaging system increases the differences of values in the range of likely document edge values (Please note, column 4, lines 40-62).

### **Allowable Subject Matter**

- Claims 1-27, 34, 36-37, 39-40, 42, 44 and 46 are allowed.
- Claims 35, 38, 41, 43, 45 and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- The following is a statement of reasons for the indication of allowable subject matter: None of the prior art disclose or fairly suggest wherein, a backing in opposing relationship with an object having a second background color substantially the same as a first background color and wherein an imaging system determines at least one general bounding region of said object based upon a shadow cast onto said backing by said object and wherein an image obtained from sensing said object has a plurality of horizontal rows of pixels, said imaging system dividing said horizontal rows of pixels in a plurality of groups, each of said groups including a plurality of said horizontal rows of pixels, computing a statistical measure in a direction traverse to said horizontal row of pixels, using said statistical measure in determining said at least one boundary of said object.

## **Conclusion**

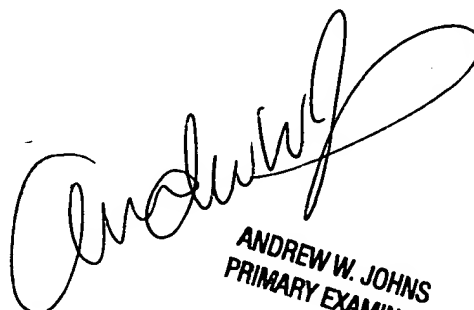
- **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
- A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.



## Contact Information

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amir Alavi whose telephone number is 703-306-5913.
- The examiner can normally be reached on Mon-Thu.. 8:00 am thru 6:30pm.If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Leo Boudreau can be reached on 703-305-4706.
- The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.
- For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AA  
Group Art Unit 2621  
03 January 2005



ANDREW W. JOHNS  
PRIMARY EXAMINER